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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,352	09/24/2003	Yen-Chang Chiu	MR2707-46	4318

4586 7590 11/28/2006

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ELLICOTT CITY, MD 21043

EXAMINER
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DHARIA, PRABODH M

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/668,352	<b>Applicant(s)</b> CHIU ET AL.	
	<b>Examiner</b> Prabodh M. Dharja	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-6, 14-16, 24-26 and 34-36 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-13, 17-23, 27-33 and 37-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. **Status:** Please all replies and correspondence should be addressed to examiner's new art unit 2629. Receipt is acknowledged of papers submitted on 10-12-2006 under amendments, which have been placed of record in the file. Claims 1-40 are pending in this action.

***Response to Amendment***

Please all the replies and correspondence should be addressed to examiner new art unit 2629. The amendment filed 10-12-2006 does not introduces new matter into the disclosure. The added material which is supported by the original disclosure.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,8-10,11-13,18-20,21-23,28-30,31-33,38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa (US2004/0119700 A1) in view of (Moriya et al. (US 2003/0006975 A1) and Westerman et al. (US 2005/0104867 A1).

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Regarding Claim 1,11,21 and 31, Ichikawa teaches a capacitive touchpad integrated with key (page 1, paragraph 1,8) and handwriting functions (page 1, paragraph 4), comprising: a panel for touch inputting (page 1, paragraph 1).

However, Ichikawa fails to teach a mobile phone; a first pattern on said panel for representing a mode switch to switch said touchpad between a key mode and a handwriting mode; a plurality of regions defined on said panel; and a plurality of second patterns on said plurality of regions for operation in said key and handwriting modes.

Moriya et al. teaches a mobile phone (page 1, paragraph 1) a first pattern on said panel for representing a mode switch to switch said touchpad between a key mode and a handwriting mode (page 5, paragraph 54, Lines 6-12, page 2, paragraph 12, right hand side column, Lines 6-9, paragraph 13, Lines 1-11); a plurality of regions defined on said panel (page 2, paragraph 10, Lines 1-13, page 5, paragraph 54,55); and a plurality of second patterns on said plurality of regions for operation in said key and handwriting modes (page 2, paragraph 13, Lines 1-9, paragraph 12, Lines 1-7).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the Moriya et al. teaching of in the teaching of Ichikawa to be able to have small informational devices such as personal digital assistants (PDA) and cellular mobile telephones with LCD and, in particular to means for inputting graphical and spatial information into such devices using a touch pad.

However, Ichikawa modified by Moriya et al. fails to recite or disclose a plurality of regions selectively defined on said panel responsive to actuation of said mode switch; and a

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plurality of second patterns selectively defined on said plurality of regions for operation in said key and handwriting modes.

However, Westerman et al. teaches a plurality of regions selectively defined on said panel responsive to actuation of said mode switch (page 5, paragraph 43, page 8, paragraph 111-114, page 7, paragraphs 106-108, the mode recognizing the mode and selective hand gesture selects region of operation selectively per hand movement); and a plurality of second patterns selectively defined on said plurality of regions for operation in said key and handwriting modes (page 5,6, paragraphs 41,42,43,44, page 8, paragraph 111-114).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Westerman et al. in the teaching of Ichikawa to be able to have a user friendly integrated generic manual input device such as typing, handwritings, multiple degree of freedom manipulation on a multi-touch surface with ergonomic, economic and productivity advantage.

Regarding Claim 3,13,23 and 33, Ichikawa teaches an LCD for displaying an input from said panel (page 3, paragraph 57).

Regarding Claim 2,8-10,12,18-20, 22, 28-30 and 32, 38-40, Ichikawa fails to teach a mouse or key/handwriting mode for switching thereto by touching said first pattern; a recognition module for recognizing an input trace onto said panel in said handwriting mode; a judgment module for determining a number of fingers touching onto said panel; and a plurality of second patterns comprises a plurality of key patterns for performing a telephone keyboard.

Moriya et al. teaches a mouse or key/handwriting mode for switching thereto by touching said first pattern (page 5, paragraph 54,55, page 6, paragraph 59); a recognition module for recognizing an input trace onto said panel in said handwriting mode; a judgment module for determining a number of fingers touching onto said panel (page 6, paragraph 59); and a plurality of second patterns comprises a plurality of key patterns for performing a telephone keyboard (page 1, paragraph 1, paragraph 3, Lines 9-14, page 2, paragraph 13, Lines 1-9, paragraph 12, Lines 1-7).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the Moriya et al. teaching of in the teaching of Ichikawa to be able to have small informational devices such as personal digital assistants (PDA) and cellular mobile telephones with LCD and, in particular to means for inputting graphical and spatial information into such devices using a touch pad; where touch pad would operate on different mode selected input to input handwriting, key or cursor control.

4. Claims 7,17,27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa (US2004/0119700 A1) in view of (Moriya et al. (US 2003/0006975 A1) and Westerman et al. (US 2005/0104867 A1) as applied to claims 1-3,8-10,11-13,18-20,21-23,28-30,31-33,38-40 above, and further in view of Nozaki (US 7,030,862 B2).

Regarding Claim 7,17, 27, and 37, Ichikawa modified by Moriya et al. and Westerman et al. fails to teach a backlight for said panel.

However, Nozaki teaches a backlight for said panel (Col. 2, lines 32,33).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the Nozaki teaching of in the teaching of Ichikawa modified by Moriya et al. and Westerman et al. to be able to have touch panel with back-lightings so that make image forming apparatus easier to use in another words to have a user friendly input device.

*Allowable Subject Matter*

5. Claims 4-6,14-16,24-26 and 34-36 are allowed.

6. The following is an examiner's statement of reasons for allowance:

Applicant has amended objected claims 4,14,24 and 34 adding limitations of independent claim they depend from respectively. After further search and consideration cited prior art fails to recite or disclose uniquely distinct features of underlined bold claims below;

A capacitive touchpad integrated with key and handwriting functions, comprising: a panel for touch inputting; a first pattern on said panel for representing a mode switch to switch said touchpad between a key mode and a handwriting mode; a plurality of regions defined on said panel; and a plurality of second patterns on said plurality of regions for operation in said key and handwriting modes and **panel comprises: a substrate selected from the group consisting of PCB, membrane and transparent plate; a conductor wiring on said substrate; and an insulator covered on said conductor wiring; conductor wiring comprises an ITO and insulator is transparent.**

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

7. Applicant's arguments, see remark, filed 10-12-2006, with respect to the amended claim(s) 1,4,11,14,21,24,31 and 34 under arguments have been fully considered and are persuasive about the prior art teachings. However, upon further consideration and search, a new ground(s) of rejection is made in view of Westerman et al. (US 2005/0104867 A1).

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668.

The examiner can normally be reached on M-F 8AM to 5PM.

10. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

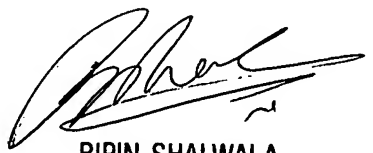
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November 22, 2006



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